

Big Tusker Project 2019

FINAL REPORT

To

International Elephant Foundation

Report Period – January 2019 to December 2019

1. Cover Page

Project Title:	Big Tusker Project 2019 <i>Improved security and conservation of elephants in Tsavo, Kenya</i>
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Budget:	Total Project Budget: US\$ 800,000 Total Requested: US \$15,000 Received from IEF US\$ 15,000
Project Starting Date:	01 January 2019
Anticipated Completion Date:	31 December 2019
Project Present Status:	FINAL

2. List the overall and specific conservation needs this project addressed.

Overall conservation needs this project addressed:

The Tsavo Conservation Area (TCA) covers 42,000 km², housing 49% of Kenya's National Parks (NPs), including Tsavo East, Tsavo West and Chyulu Hills NPs. It is home to 40% of Kenya's elephants (*Loxodonta africana*), numbering approximately 14,000 (12,866 elephants were counted in the 2017 TCA Aerial Census that takes place every 3 years – next one due for February 2020). Despite the vastness of these NPs, Tsavo's wildlife, especially its elephants, also relies upon community areas for their important seasonal dispersal, resulting in many challenges, particularly poaching and Human Elephant Conflict (HEC).

Poaching, driven by the Illegal Wildlife Trade, remains a significant threat with varying numbers of elephants poached for their ivory annually (there are likely more undiscovered carcasses due to the vastness of Tsavo than were actually found). The need to monitor and address a range of additional threats facing Tsavo's biodiversity including; Unsustainable resource extraction; Illegal and unregulated livestock grazing; Human Wildlife Conflict and retaliatory killings; Mega infrastructure development and conversion of wildlife habitat to agriculture and settlements; Pollution and Climate Change impacts.

History has shown over and over again that the elephant poaching threats to Tsavo can return rapidly (close proximity to Somalia and Mombasa – recognised as the main exit hub for east African ivory). Early detection of and rapid response to poaching incidents is key to addressing this threat.

Consistent and reliable aerial monitoring forms the main focus of this grant, where along with other Tsavo Trust partners, an aerial blanket is maintained with a specific focus towards elephant security.

Specific conservation needs this project address:

- **Aerial Unit:** This project has maintained regular aerial support to KWS providing real-time information on threats, poaching incidents, and monitoring of high value species, especially the big "Tusker" elephants and black rhino (*Diceros bicornis*).
- **Anti-poaching Teams:** This project specifically supports Tsavo Trust's *Big Tusker Project* through our Wildlife Conservation Program. It has supported the Aerial Unit as well as contributed towards permanent deployment of joint Tsavo Trust / KWS protection and monitoring field teams to gather further intelligence through their patrols, respond to improved intelligence capabilities within the TCA, and conduct monitoring, de-snaring and anti-poaching patrols.

This project continues to be an important one for the TCA given the many and differing challenges it faces on a daily basis; from its vastness and lack of road infrastructure, to its poaching threats and other illegal activities (charcoaling, livestock, logging and habitat destruction). Development represents a major concern to the long-term sustainability of Tsavo, particularly the transport corridors that divide the TCA in half. Continuation of this project is vital going forward given the fact that currently KWS have challenges in that they rely heavily on conservation partners, such as Tsavo Trust, especially for aerial support within TCA.



Low level aerial reconnaissance over Tsavo in Tsavo Trust Super Cub 5Y TTZ on 8th August 2019

3. Summarize the goals and objectives and describe any changes in goals and objectives from the original proposal.
4. For each objective, describe the specific actions taken to achieve that objective.
5. Describe any activities that differ from the original proposed actions and explain the reason for the change.

Goal:

The overarching goal of this Project is to secure and maintain an increasing elephant population in the TCA, a population that holds the genes to one of the last viable populations of iconic “Tusker” elephants through a holistic approach to biodiversity conservation **providing enhanced elephant security within the Tsavo Conservation Area** in support of Kenya Wildlife Service (KWS) as the key partner.

Objectives:

1. Aerial Unit: **Consistent aerial monitoring over the Tsavo Conservation Area** to individually identify on a regular basis the known iconic Tuskers of Tsavo whilst providing aerial coverage over the greater elephant population of Tsavo. Aerial Reconnaissance is arguably the most important tool in the fight against the Illegal Wildlife Trade, especially over the vastness of Tsavo.
2. To decrease elephant poaching within the TCA through the deployment of **Biodiversity Protection Units**, and to compliment KWS in their protection efforts through infrastructure and operational support.
3. **Biodiversity Monitoring**: To ensure continuity of iconic Tusker elephant database collation, and TCA biodiversity monitoring with a focus on elephants and their habitat.
4. Reduce poaching through establishing and maintaining informer networks, **gathering information** in key target communities
5. **Reduce Human Elephant Conflict** in two key Wildlife Conservancies under stewardship of Tsavo Trust – Kamungi Conservancy and Shirango Community Conservancy.
6. **Prevent habitat loss and conversion of wildlife areas** through developing two key Wildlife Conservancies of Kamungi Conservancy and Shirango Community Conservancy
7. Strengthen Tsavo conservation stakeholder capacity through **collaborative partnerships**
8. Improve data and **understanding of Climate Change impacts** in the TCA

Differing Activities:

There were no differing activities in relation to the original proposal.



Iconic super Tusker coded as LU1 – December 2019

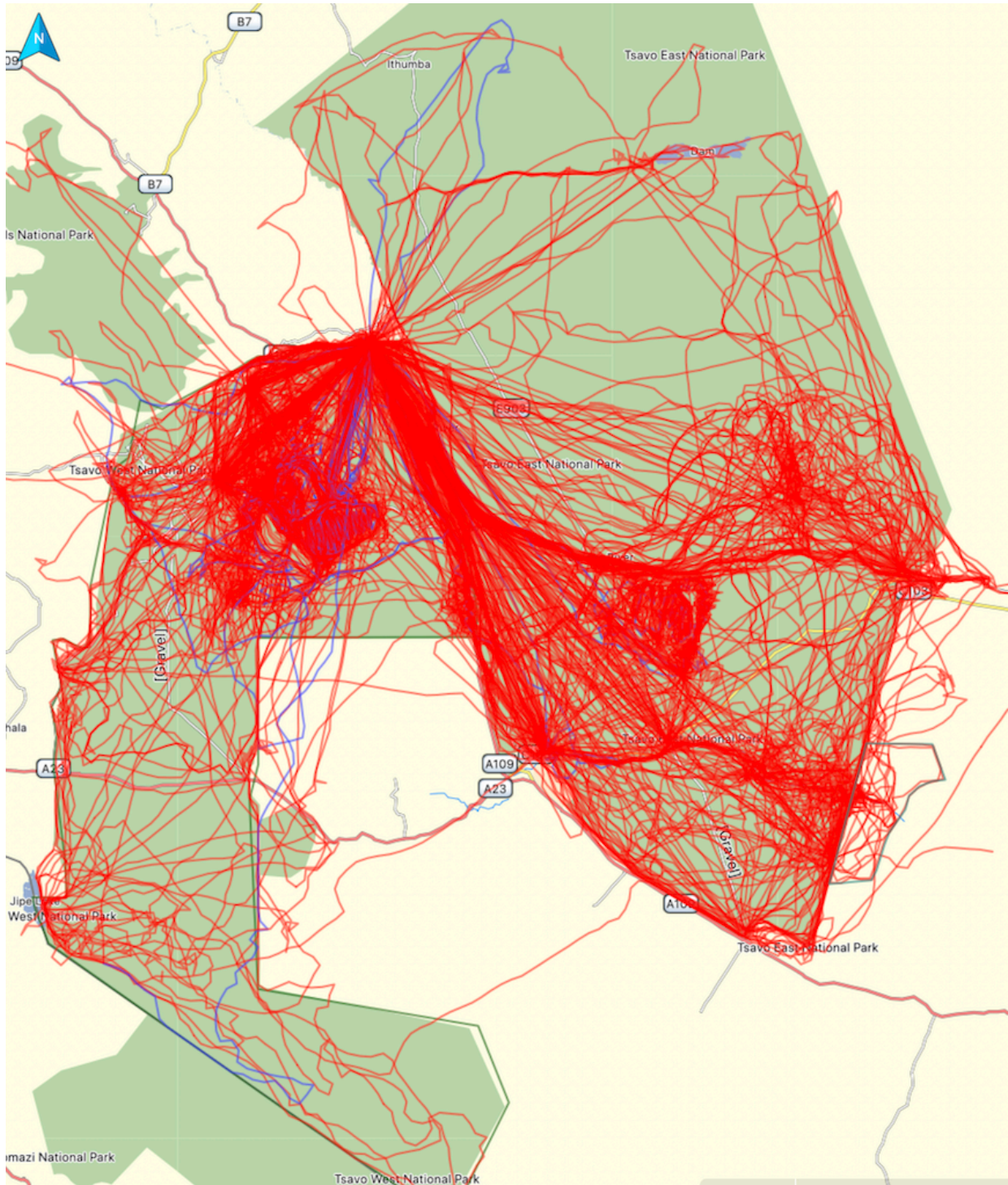
6. Describe the conservation outcomes for elephants, other wildlife, habitat and human communities, and list major findings and accomplishments to date.

Conservation Outcomes – Year 2019:

Aerial reconnaissance:

With a total of **105,716 kilometres** over **927 hours** of flight over the TCA in 2019, many areas, particularly poaching 'Hot Spot' zones and areas where the known large 'Tuskers' frequent, have been regularly covered. This ongoing aerial and ground team presence is without a doubt a deterrent to poaching and other illegal activity within the TCA.

Flights are low level (around 300 feet above ground) for best observation height and are with KWS Officers as rear seat observers. This gives real time information to the Officer covering his specific area of operation the full knowledge of his block from a "birds eye view" and in so doing directs field deployments.



Map shows flight paths flown by Tsavo Trust aircraft over the TCA from January 2019 to December 2019 where 105,716 kilometres were flown over 927 hours of flight.

2019 Field Activities Summary - Aerial & Ground Operations:

Activity	Hours Flown	Kilometers Covered
Aerial Reconnaissance	927 (Ave. 77.2 p/month) Average 114km p/h of low-level flight	105,716 (Ave. 8,810km p/month) Flights carried out jointly with KWS staff
	Field Patrol Days	Kilometers covered
Ground Activities (Joint KWS / TT)	Protection teams: 1037 days Monitoring teams: 545 days	Protection teams: 113,955 km Monitoring teams: 72,007 km
Rhino specific flights	379 (Ave. 31.5 p/month)	43,651 (Ave. 3,637.6 km p/month)
	No. Observed	
Big “Tuskers”	Total: Bulls - 8 Super Tuskers, 27 emergers & 6 Iconic Cows 359 total Tusker sightings aerial & ground teams = 335 bulls & 24 cows Ave. 1 Tusker sighting every day	
“Tuskers” lost	<u>NIL Confirmed</u>, 2 unconfirmed (2 bulls): 1. MU1 – missing since 9 th December 2018, last seen TENP southern sector 2. AR1 – missing since 23 rd February 2017, last seen TENP southern sector	
	No. Recovered	
Ivory recovered	66 elephant tusks (largest 30.1kg / 66lbs) • 4 tusks recovered. from ivory dealers, 1 arrests made – ivory related (KWS / TT) • 66 tusks recovered from aerial & ground team findings (KWS / TT)	
Elephant carcasses	Fresh (less than 3 weeks old)	Recent (less than 3 months old)
	30 (c of d: 8 poached, 13 natural, 9 unconfirmed)	15 (14 natural, 1 unconfirmed)
Total located	TOTAL 45 carcasses located (1 carcass every 20.3 hrs of flight)	
Poacher camp/hides	Fresh - 12	Recent – 14
Arrests	67 - by KWS / TT – (1 ivory dealer, 16 bush meat poachers, 41 illegal livestock, 10 other)	
Snares/traps recvd.	644 by joint KWS / TT Tembo Teams (8 large, 84 medium, 552 small)	
Human Wildlife Conflict	KAMUNGI CONSERVANCY: (Along north boundary TWNP-Triangle): 344 reported incidents / Ave. 28.66 p/month (elephant 175, leopard 78, Hyena 17, lion 5, venomous snake 2, wild dog 4, crocodile 2, others 61) SHIRANGO CONSERVANCY: (Along South-East boundary TENP): 209 reported incidents/ Ave. 19 p/month (elephant 55, leopard 29, Hyena 95, lion 27, Hippo 3)	
Other Illegal activities seen	167 cattle bomas (120,350 plus cows & 13,300 shoats, 267 people seen, 19 charcoal kilns – during air recces alone)	
Written reports to KWS	841 - daily email reports, various communications & monthly reports	
Meetings & Interaction with KWS	<ul style="list-style-type: none"> Daily field collaboration with KWS personnel by Tsavo Trust ground and aerial teams Regular formal meetings with KWS in various locations including TCA HQ; TENP & TWNP HQ; KWS HQ Nairobi & Tsavo Trust HQ 	
Other Significant Activities	<ul style="list-style-type: none"> 23/1/19: TT Super Cub 5Y NRF involved in an accident (both pilot and observer were fine) but the aircraft deemed a right off. 7/6/19: Super Cub 5Y JAR deployed to Tsavo field work as replacement Feb - May 2019: Tembo 2 and Tembo 4 teams involved in TCA Carnivore Census in support of KWS Partner to KWS to assist in implementation of TCA Management Plan 2019 -2029. Partner to KWS and ZSL in the Tsavo's in line with KWS Rhino Strategy – RII Project. Partner in implementation of the KWS Hirola Recovery Plan. Water project started in Shirango Conservancy. 21/9/19: Rescued a 6-month-old rhino calf in TWNP – IPZ after locating a fresh rhino carcass (mother). Joint Rhino capture operation – KWS / ZSL / TT: 13 rhinos fitted with horn transmitters in IPZ and 6 clean rhino ear notched in NRS, TWNP. 	



Tembo 5 team vehicle on patrol along with KWS armed rangers. This is 1 of 4 mobile anti-poaching teams deployed under Tsavo Trust within the TCA.



Freshly poached elephant carcass located by Tembo 5 team on 5th August 2019. Ivory was hacked out and missing, tails hairs cut out and carcass covered in freshly cut bush to conceal it from vultures and aerial reconnaissance flights. The Tembo teams have proved to be a vital support contribution to KWS over recent years and elephant poaching in TCA has been reduced by over 70% since 2014.

7. Approximately how many humans/communities are/were impacted by your project?
Approximately how many elephants are/were impacted by your project?

Humans impacted by project: Humans directly affected by this project are shown in the summary table, and essentially are those involved in illegal wildlife activities within the Protected Area.

Elephants impacted by project: Approx. 14,000 elephants (estimated population 2020; Total TCA Aerial Census due in early 2020).

This project is more of a direct focus on elephants rather than humans.

8. Describe any problems discovered or occurring during this grant period

No problems were discovered or occurred during this grant period.

9. Was your project successful? State short and long-term goals that you are using to evaluate your accomplishments.

Yes. Short and long-term goals that are being used to evaluate accomplishments include:

Aerial Reconnaissance desired status used to evaluate accomplishments:

- **927 hours** flown for conservation of elephants
- **105,716 kilometres** flown
- Continued monitoring to provide information for ground security deployments. **Protection teams: 1,037 field days; monitoring teams: 545 field days**
- Reduce number of poached elephants – from the **45 elephant carcasses found, only 8 were confirmed as poached**. Combined KWS and conservation partners in TCA have helped reduce elephant poaching by over 70% in last 5 years
- Destroy and reduce number of poaching activities. **26 poachers' camps destroyed**
- Continually give KWS and Tembo teams location info. So, effective ground security deployments can be made and in so doing reduce illegal activity.
- Be positioned to react swiftly to armed threats

Ground protection team desired status used to evaluate accomplishments:

- Significantly reduce elephant poaching: **only 8 confirmed poached**
- Arrest elephant and bushmeat poachers: **67 arrests**
- Work in tandem with aircraft to locate carcasses to ascertain cause of death: **45 fresh or recent elephant carcasses located**
- Recover as many elephant tusks from poachers or found carcasses as possible: **66 elephant tusks recovered**
- Locate and destroy all poacher equipment and camps/blinds found: **26 poachers camps destroyed**
- Remove all snares found: **644 wire snares recovered** (8 cable snares set for elephants and rhino)

Ground monitoring and research team desired status used to evaluate accomplishments:

- Regular monitoring enhances their security and gives a presence in their home range: **545 field days**
- Continue to provide this support to KWS
- Continue to provide support to KWS for MIKE data: **45 elephant carcasses verified**
- Continue to maintain the "Tusker" database: **359 total sightings: 335 bulls and 24 cow Tuskers observed = average of 1 sighting every day**
- Continue to collect ivory from carcasses to stop them entering the illegal market: **66 tusks recovered**

Informer networks desired status used to evaluate accomplishments:

- Informers are identified and recruited for each key target community and are regularly communicating with intelligence officers and providing accurate and timely information.

Investigations and prosecution desired status used to evaluate accomplishments:

- All crime scenes are secured, with evidence chains secured, leading to strong cases, and successful prosecutions.
- **Scene of crime and forensic training carried out for all field teams**

10. Based on this Project, what is the “next step” for this project and does it have implications for future conservation actions?

The “next steps” for this project are:

- **Maintain existing levels of aerial and ground operational support to KWS**
- **Fundraise for the following:**
- Upgrade old and increasingly unreliable field vehicles for anti-poaching teams.
- To increase the capacity for Aerial Reconnaissance flights through the addition of a third Super Cub aircraft. The aircraft identified is a currently out of service Piper Super Cub owned by Tsavo Trust (registration 5Y ACE). Fundraising is ongoing to raise funds to overhaul and recondition this aircraft.
- Carry out further pilot training for an additional pilot at Tsavo Trust to assist on carrying out monitoring flights and assisting in operations.
- Protection ground operations to improve effectiveness and capability through specialist training and use of technological systems.
- §To continue to provide assistance through expanding operations where necessary to partner Community Conservancies bordering the National Park including Kamungi Conservancy and Shirango Community Conservancy to further engage with specific marginalised communities to improve livelihoods and to protect and conserve the wildlife and habitats of these areas.

11. Provide at least one human interest story. If available, please include a photo of the incident described.

Tusker ‘Wide Satao’ successfully treated for a fresh arrow wound

Thanks to Tsavo Trust's Head of Monitoring, Joseph Kyalo for his close watching of Tusker known as Wide Satao on the 9th of May 2019, when Kyalo noticed unusual behaviour, and this well-known elephant to Tsavo Trust and Kenya Wildlife Service had moved quickly from a potentially unsafe area outside the park boundary of Tsavo East National Park to a safer location within the Park.

An immediate ground patrol with Tsavo Trust's Tembo 2 monitoring unit in collaboration with KWS researchers discovered that this iconic bull tusker had been hit with an arrow, which was protruding from his right flank. This was immediately reported to Park management and rapid plans were set in motion to treat Wide Satao.

An aerial recce by Tsavo Trust the following morning was carried out to confirm Wide Satao's location and ascertained he had an arrow on his right flank. Details and locations were passed on the appropriate Officers in charge.

KWS Research Technologist accompanied Tsavo Trust's Tembo 2 ground team along with the KWS Tsavo Conservation Area Vet Unit to where Wide Satao was located.

Wide Satao was successfully immobilized. He was first treated for a wound on his left flank (old arrow wound – previously treated and arrow removed). He was then rolled over so that he laid on his left side to expose the current wound. The arrow was removed, and the wound treated. The arrow had hit the elephant at an angle and the injury it left was fortunately subcutaneous.

Tsavo Trust in collaboration with KWS and Save The Elephants continue to monitor Wide Satao who appears to be back to his normal behaviour. In fact, he has been observed every day since immobilization.

Note: The above extract is from the Tsavo Trust Mid-term Report to IEF.

Wide Satao continues to be located on a regular basis and seems to have recovered well following the above incident. He does not seem to have learned from his potentially life-threatening experience and continues to roam in the same unsafe areas where he was arrowed. Tsavo Trust is making efforts currently to establish a security field outpost in this location as a result.

Wide Satao's collar is still working and we hope to fit a new collar along with KWS and Save The Elephants in early 2020.



Super Tusker WS1 with an arrow embedded in his right flank – May 2019

12. In 500 words or less, summarize the progress and results achieved. This will be used for media and donor recruitment.

During 2019 Tsavo Trust carried out a total of **105,716 kilometres** over **927 hours** of flight over the Tsavo Conservation Area focussing particularly on poaching 'Hot Spot' zones and areas where the known large 'Tuskers' frequent. This ongoing aerial and ground team presence is a deterrent to poaching and other illegal activity within the TCA.

- **8 bull 'super Tuskers', 27 emerging bull tuskers, and 6 iconic cow tuskers** are currently known by Tsavo Trust to live in the Tsavo Conservation Area. Tsavo Trust have made **359 total sightings** of which **335 bulls and 24 cow Tuskers observed = average of 1 sighting every day.**

No 'tuskers' have been confirmed lost 2019, although concerningly, 1 super tusker and 1 emerging tusker have not been seen for over 12 months and are believed to have died, but carcasses not located. Tsavo Trust aerial and ground teams will continue to search for these elephants.

Tsavo Trust has located a total of **45 elephant carcasses** in 2019 and **recovered 66 elephant tusks** from aerial and ground team patrols.

Tsavo Trust provided aerial and ground assistance alongside KWS and Save The Elephants in an ongoing collared elephant monitoring exercise, which resulted in the observing **20 collared elephants on average each month.**

Ground protection teams have covered **113,955 kilometres** (over **1,037 patrol days**) and collected **644 snares or traps** as well as made **67 arrests** (many of which are bushmeat and elephant poachers) in joint operations with KWS. Ground monitoring teams have covered **72,007 kilometres** (over **545 patrol days**) of the Tsavo Conservation Area providing regular scientific data from field observations, alongside KWS research and monitoring scientists.

Tsavo Trust has continued its mandate in being a reliable field partner to Kenya Wildlife Service (KWS) within the Tsavo Conservation Area (TCA) through the above activities and results.

13. List all organizations associated with this project and their roles in the project.

- **Kenya Wildlife Service (KWS)** – Kenya national wildlife authority
- **US Fish and Wildlife Service** - provide co-financing for the Big Tusker Project – aerial unit
- **USAID** – provide co-financing for the Wildlife Conservation Program and community Wildlife Conservancy support
- **Oak Foundation** – provide co-financing for the Big Tusker Project – rhino related
- **Leopardess Foundation** - provide co-financing for the Big Tusker Project
- **JM Foundation Africa** – provide co-financing for the Big Tusker Project
- **Zoological Society of London (ZSL)** – works closely with Tsavo Trust and KWS on a daily basis, specifically rhino conservation activities in TWNP
- **Save The Elephants** – provide co-financing for the Big Tusker Project – collared elephant monitoring, as well as being a collaborative partner.
- **Cheyenne Mountain Zoo** - provide co-financing for the Big Tusker Project and Tsavo Trust HQ
- **Tusk Trust** - provide co-financing for the Big Tusker Project
- **Kamungi Conservancy** – conservation partners bordering Tsavo West National Park.
- **Shirango Community Conservancy** – conservation partners bordering Tsavo East National Park

14. Include a financial report of International Elephant Foundation funds spent.

Budget table showing total project costs for 2019 (All costs in US\$)

1 US\$ = Ksh. 100

Budget Item	Amount received from IEF (US\$)	TOTAL IEF Contribution to Project Costs (US\$)
Aerial Unit support: purchase of 20 drums (200ltr) Avgas fuel @ \$400 (does not include transport)	7,500 received on 30 th January 2019	8,000
Field anti-poaching teams support: Vehicle running costs @ \$1 per km (including fuel, maintenance, insurance, spares etc) for 7,000km over report period	7,500 received on 22 nd August 2019	7,000
2019 TOTAL COSTS IEF contribution towards Wildlife Conservation Program / Big Tusker Project US\$	\$15,000	\$15,000

15. Submit at least five high resolution digital images (350kb or over) representative of the Project as separate individual files.

Photos attached:

- Tsavo Trust Super Cub over Tsavo – 2nd August 2019
- Bull Tusker elephant coded as BA1 – 7th August 2019
- Bull Tusker elephant coded as LU1 – black and white photo – 20th November 2019
- Elephant passing through Mito Andei underpass – 27th November 2019
- HEC - Elephant herd close to illegal cattle herd inside Protected Area – 28th April 2019

16. Submit at least one video clip.

Not currently finalised, work in progress.

17. Do you intend to publish and/or present your findings at a conference or symposia?

No

18. Has your project received any media coverage?

Tsavo Trust video clip:

TEASER: <https://f.io/KTG0lkup>

FULL FILM: <https://f.io/UVjnNZvw>

19. Please list all websites, blogs, social media accounts, etc associated with the project, its investigators, and organizations

Website: <http://tsavotrust.org/>

Facebook Page: <https://web.facebook.com/TsavoTrust>

Twitter account: <https://twitter.com/TsavoTrust/>

Instagram account: <https://www.instagram.com/tsavotrust/>